IN THE CLAIMS:

Please amend the claims to read as follows:

-- 1-13 (cancelled).

14. (currently amended) A nanocomposite comprising:

a diamagnetic core;

a ~~thin~~ layer of magnetic material formed on the diamagnetic core;

a passivating layer of diamagnetic material formed on the layer of magnetic material.

15. (original) The nanocomposite of claim 14, wherein:

the diamagnetic core is a material from the group consisting of gold, silver, copper, and platinum;

the magnetic material is a material from the group consisting of iron and cobalt and alloys containing iron and/or cobalt;

the passivating layer is a material from the group consisting of gold, silver, platinum, and copper, and alloys containing these materials.

16. (previously amended) The nanocomposite of claim 14, comprising:

a gold core;

a thin layer of iron formed on the gold core;

a passivating layer of gold on the layer of iron.

17. (previously amended) The nanocomposite of claim 14, produced with a reverse micelle synthesis technique.

18. (previously amended) The nanocomposite of claim 14, synthesized using cetyltrimethylammonium bromide, n-butanol, octane and aqueous reactants.

19. (previously amended) Ferrofluids made with the nanocomposite of claim 14.

20. (previously amended) Granular GMR materials made with the nanocomposite of

claim 14.

21. (previously amended) Inductor materials made with the nanocomposite of claim 14.

22. (previously amended) Storage media made with the nanocomposite of claim 14.

23. (previously amended) Giant magnetoresistance sensors made with the nanocomposite of claim 14.

24. (previously amended) Directed drug delivery agents made with the nanocomposite of claim 14.

25. (previously amended) Agents for targeted sensing for *in vivo* applications made with the nanocomposite of claim 14.

26. (original) The nanocomposite of claim 14, wherein:

the diamagnetic core is a material from the group consisting of gold, silver, copper, and platinum;

the magnetic material is a material from the group consisting of iron and cobalt and platinum alloys containing iron and/or cobalt;

the passivating layer is a material from the group consisting of gold, silver, platinum, and copper, and alloys containing these materials.

27. (currently amended) The ~~invention~~ nanocomposite of claim 14, wherein the nanocomposite is annealed.

28. (currently amended) The ~~invention~~ nanocomposite of claim 27, wherein the nanocomposite is annealed at a temperature of about 300 K.

29. (cancelled).

30. (new) The nanocomposite of claim 14, wherein:

the layer of magnetic material is thin.

31. (new) The nanocomposite of claim 15, wherein:

the layer of magnetic material is thin.

32. (new) The nanocomposite of claim 16, wherein:

the layer of magnetic material is thin.

33. (new) The nanocomposite of claim 17, wherein:

the layer of magnetic material is thin.

34. (new) The nanocomposite of claim 18, wherein:

the layer of magnetic material is thin.

35. (new) The ferrofluids of claim 19, wherein:

the layer of magnetic material is thin.

36. (new) The granular GMR materials of claim 20, wherein:

the layer of magnetic material is thin.

37. (new) The inductor materials of claim 21, wherein:

the layer of magnetic material is thin.

38. (new) The storage media of claim 22, wherein:

the layer of magnetic material is thin.

39. (new) The giant magnetoresistance sensors of claim 23, wherein:

the layer of magnetic material is thin.

40. (new) The directed drug delivery agents of claim 24, wherein:

the layer of magnetic material is thin.

41. (new) The agents of claim 25, wherein:

the layer of magnetic material is thin.

42. (new) The nanocomposite of claim 26, wherein:

the layer of magnetic material is thin.

43. (new) The nanocomposite of claim 27, wherein:

the layer of magnetic material is thin.

44. (new) The nanocomposite of claim 28, wherein:

the layer of magnetic material is thin.